Panicum virgatum – (Pascopyrum smithii) Herbaceous Vegetation

COMMON NAME Switchgrass – (Western wheatgrass) Herbaceous Vegetation
SYNONYM Switchgrass Wet-mesic Tallgrass Prairie
PHYSIOGNOMIC CLASS Herbaceous Vegetation (V)
PHYSIOGNOMIC SUBCLASS Perennial graminoid vegetation (V.A)
PHYSIOGNOMIC GROUP Temperate or subpolar grassland (V.A.5)
PHYSIOGNOMIC SUBGROUP Natural/Semi-natural (V.A.5.N)
FORMATION Tall sod temperate grassland (V.A.5.N.a)
ALLIANCE ANDROPOGON GERARDII - (CALAMAGROSTIS CANADENSIS, PANICUM VIRGATUM) HERBACEOUS ALLIANCE
CLASSIFICATION CONFIDENCE LEVEL 3
USFWS WETLAND SYSTEM Terrestrial

RANGE

Lacreek National Wildlife Refuge

The switchgrass type is found as relatively small, sometimes pure stands throughout the Refuge. The most naturally occuring communities are found as isolated patches in some of the swales and depressions in the sandhills portion of the Refuge. Stands found in the upland grassland areas and adjacent to the wetland communities appear to be the result of seeding efforts.

Globally

This type has been reported from eastern Wyoming and western South Dakota, but its range is not well understood.

ENVIRONMENTAL DESCRIPTION

Lacreek National Wildlife Refuge

Switchgrass is an infrequent but common component of many of the more mesic; however it rarely forms large continues stands..

Globally

Switchgrass is a common component of many wetlands and mesic sites, but becomes dominant in wetter parts of drainages and wetland basins (Von Loh et al. 1999)

MOST ABUNDANT SPECIES

Lacreek National Wildlife Refuge

Stratum	Species
Herbaceous	*Glycyrrhiza lepidota*, *Pascopyrum smithii*, *Panicum virgatum, Andropogon gerardii, Poa pratensis, Bromus inermis*

Globally

Stratum	Species
Herbaceous	*Aster ericoides*, *Glycyrrhiza lepidota*, *Sporobolus heterolepis*, *Schizachyrium scoparium*, *Pascopyrum smithii*, *Panicum virgatum*

CHARACTERISTIC SPECIES

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Panicum virgatum, *Andropogon gerardii*, *Glycyrrhiza lepidota*

Globally

Panicum virgatum, *Pascopyrum smithii*, *Schizachyrium scoparium*, *Glycyrrhiza lepidota*

OTHER NOTABLE SPECIES

VEGETATION DESCRIPTION

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The switchgrass herbaceous vegetation type often provides farily dense ground cover of between 50 to 80%. Switchgrass (*Panicum virgatum*) and big bluestem (*Andropogon* gerardii) are the dominant species in more mesic areas while western wheatgrass (*Pascopyrum smithii*) is more abundant on somewhat drier elevated sites. Common associated species include wild licorice (*Glycyrrhiza lepidota*), Kentucky bluegrass (*Poa* pratensis), and smooth brome (*Bromus* inermis). Where the switchgrass type occurs in the sandhills, the distribution often becomes "patchy" with most stands bordered by prairie sandreed (*Calamovilfa longifolia*), neelde-and-thread (*Hesperostipa comata*), and soapweed (*Yucca glauca*).

Globally

In Badland National Park, South Dakota, the switchgrass grassland type provides dense ground cover, typically between 50-80%. *Panicum virgatum* is the dominant species in more mesic areas, *Pascopyrum smithii* is more abundant on elevated sites within the drainages and basins, and *Schizachyrium scoparium* is the dominant species along the upper margin of the type. Where this type is found in drainages, the distribution often becomes "patchy" and *Calamovilfa longifolia* replaces *Schizachyrium scoparium* on the upper type margin. Commonly associated species include *Glycyrrhiza lepidota*, *Aster ericoides*, and stems of *Populus deltoides*.

CONSERVATION RANK G2Q.

DATABASE CODE CEGL001484

SIMILAR ASSOCIATIONS

COMMENTS

Lacreek National Wildlife Refuge

Extensive areas naturally dominated by switchgrass are rare in the Great Plains and this type is unique in that regard. The swales and drainages which the type dominates are sometimes saturated throughout much of the growing season, or in the case of the sandhills, the stands are subirrigated.

Globally

The concept of this type is still under review, as well as its alliance placement. Other candidate alliances *include Panicum virgatum* Temporarily Flooded Herbaceous Alliance (A.1343), which is currently reported only from the southern United States, and the *Pascopyrum smithii* Temporarily Flooded Herbaceous Alliance (A.1354), which has many floristic affinities with stands in this type.

REFERENCES

Montana Natural Heritage Program. No Date. Unpublished data on file. Helena, Montana.

Von Loh, J., D. Cogan, D. Faber-Langendoen, D. Crawford, and M. Pucherelli. 1999. USGS-NPS Vegetation Mapping Program, Badlands National Park, South Dakota (Final Report). Technical Memorandum No. 8260-00-02. U.S. Bureau of Reclamation Technical Service Center. Denver Colorado.